



Colorado Department
of Public Health
and Environment

Personal Protection for Flood Clean-up

Personal Protective Equipment (PPE): Hazards in flood waters are variable and can include sewage and hazardous chemicals. There are also dangers from physical hazards such as obstacles covered by flood waters and from displaced reptiles or other animals. People working in and around flood waters should prevent skin contact and splash exposure with use of appropriate PPE, including at minimum:

- Watertight boots with steel shank, toe, and insole. Tennis shoes or sneakers should not be worn because they will transfer contamination and will not prevent punctures, bites, or crush injuries. Hip waders may be appropriate to help prevent contact with flood waters.
- Heavy, waterproof, cut-resistant work gloves. Other types of protective gloves may be required if handling identified material hazards;
- Goggles, safety glasses with side shields or full face shields;
- Hard-hat if there is any danger of falling debris or electrical hazards;
- Hearing protection (when working in an environment with any noise that you must shout over to be heard);

Any clothing or PPE worn in flood response should be disinfected between uses. Wash clothing in hot water. Boots, goggles, etc. should be scrubbed with soap and water and air-dried.

Respiratory Protection: N95 respirators may also be necessary when working in dusty conditions after water recedes, or if other recognized hazards are present, such as mold.

Most home improvement and hardware stores sell N95 dust masks. Look for the N95 or National Institute for Occupational Safety and Health (NIOSH) label on the respirator or packaging. See CDPHE's [Using the Right Dust Mask for Flood Clean-Up](#).

Employers that handle flood clean-up are likely required to have a formal respiratory protection program for workers, including training, fit-testing and medical clearance (www.osha.gov). Also, there are no respirators that have been designed for child use. We DO NOT recommend that children use respirators or be put in situations where respirator use would be necessary.

Preventing Exposure to Infectious Diseases: In all instances, people are advised to wash their hands with soap and clean water, especially before eating or drinking. Alcohol-based hand sanitizers can be used if soap and water are not available. Protect any cuts or abrasions with waterproof gloves and dressings. See CDPHE's [Disease Risks and Sewage Exposure](#).

Anyone exposed to sewage should be up-to-date on tetanus and diphtheria vaccination. Note that occupational groups exposed to sewage through their work have not been shown to be at greater risk for Hepatitis A and B compared to the general public. Thus, vaccination for Hepatitis A and B is not recommended unless there is visible evidence of blood contamination or the flood water/sewage is originating directly from a health care facility or other source of bulk blood or potentially infectious material.

More information:

NIOSH Flood response website: www.cdc.gov/niosh/topics/emres/ppe-flood.html

OSHA Flood Response Guidance for Workers:

<https://www.osha.gov/OshDoc/floodCleanup.html>

<https://www.osha.gov/SLTC/etools/hurricane/floodwaters.html>

OSHA Bloodborne Pathogens Standard, interpretation for workers exposed to waste water/sewage:

https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_id=25898&p_table=INTERPRETATIONS